



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

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BOSTON, MA 02109-3912

March 11, 2011

Colleen Madrid
Forest Supervisor
Green Mountain National Forest
Manchester Ranger District
2538 Depot Street
Manchester Center, VT 05255

RE: Comments on the Deerfield Wind Project Supplemental Draft Environmental Impact Statement, Towns of Searsburg and Readsboro, Vermont CEQ# 200100480

Dear Ms. Madrid:

The Environmental Protection Agency-New England Region (EPA) has reviewed the United States Forest Service's (FS) Supplemental Draft Environmental Impact Statement (SDEIS) for the Deerfield Wind Project. We submit the following comments on the SDEIS in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. EPA last reviewed the project in the fall of 2008 and commented on the DEIS at that time.

According to the SDEIS, Deerfield Wind LLC has requested authorization to construct and operate a 17-turbine commercial wind energy facility on approximately 80 acres of public lands within the Green Mountain National Forest (GMNF). Deerfield Wind proposes to build a 17-turbine, 34 MW facility with wind turbines on two separate ridge lines east and west of Route 8 in the Towns of Searsburg and Readsboro, Vermont. The eastern project area is adjacent to the existing 11-turbine/six MW Green Mountain Power wind facility which has been in operation since 1997 on 35 acres of privately held land adjacent to the GMNF. If authorized, the Deerfield project would be the first private wind energy facility permitted on Forest Service land in the U.S.

Construction of the applicants proposed action would require clearing and grading approximately 87 acres of lands, 72 acres of which would be in the GMNF. According to the SDEIS, the applicant's proposed project would include construction of 5 miles of new roads and upgrades to 1 mile of existing road. This work would clear and/or grade about 46 acres of GMNF land with 11 acres of impact from widening existing roads and 35 from construction of new roads. The other 41 acres of clearing/grading, 26 of which would be in the GMNF, would be associated with turbine placement and construction of laydown areas for construction. Consistent with the DEIS,

the SDEIS considers four alternatives: the applicant's proposed action described above (17 turbines); the No Action (alternative 1); a smaller 15-turbine project with a reduced number of turbines on the Western Project site (alternative 2); and an alternative with 7 turbines located only on the Eastern Project site (alternative 3). The SDEIS identifies alternative 2 as the FS preferred alternative.

Our comments on the DEIS recognized the environmental problems associated with the continued use of fossil fuel to generate electricity in New England and offered our support for appropriately sited renewable energy projects as a means to meet both state and federal goals (such as state renewable portfolio standards). EPA is encouraging states to adopt clean energy measures such as renewable portfolio standards as another means to reduce traditional air pollutants such as NOx from the electricity sector by appropriately siting non-emitting renewable energy facilities in local power pools such as the ISO-NE area.

We believe that the NEPA process can be an effective tool to help the FS determine whether it is prudent to permit construction and operation of a commercial wind power facility on the GMNF. Our comments on the DEIS highlighted our opinion that the range of alternatives addressed in the EIS was too narrow. We also expressed concerns that the project would have potentially significant adverse impacts on regionally important black bear habitat. We recommended selection of alternative 3 (the Eastern Project site only) with mitigation as the preferred alternative as it had a reduced potential to impact regionally significant black bear habitat. Our comments on the DEIS also signaled likely objection to the other build alternatives if outstanding concerns raised by the State of Vermont Agency of Natural Resources (VTANR) were not addressed. Moreover, we recommended that the FS prepare a supplemental DEIS to more fully consider new alternatives, phased alternatives and refinements to current alternatives.

Although the FS did not coordinate with EPA following issuance of our comments on the DEIS in 2008, we were pleased to learn that the FS had prepared a SDEIS for the project. We conducted a fresh review of the SDEIS with a specific focus on how alternatives and habitat issues were addressed. In addition, we supplemented our review of the SDEIS through coordination with several state and federal agencies. Through this coordination we learned that there are continuing concerns about the potential for significant adverse impacts to black bears and their habitat through construction and operation of the proposed project. We also learned that the State of Vermont Fish and Wildlife Department (VTFWD) recently recommended that the Vermont Agency of Natural Resources (VTANR) list two species of bat--the little brown bat (*Myotis lucifugus*) and northern long-eared bat (*Myotis septentrionalis*)-- as state-endangered. The SDEIS reported this possibility on page 273. It is unclear from the discussion in the SDEIS how this petition, in combination with other petitions to the Secretary of the U.S. Department of the Interior for listing both species as federally endangered (or threatened or endangered in the case of the northern long-eared bat), would affect impact assessment and decision-making for the project alternatives under consideration. Clearly, the FS has an ongoing and increasing responsibility to coordinate with both state and federal agencies on this issue to determine if any of the wind power development alternatives can be constructed and operated in a manner consistent with state and federal endangered species provisions. We also recommend that the FS

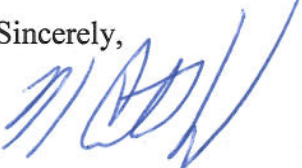
consider the recently released (February, 2011) U.S. Fish and Wildlife “Draft Voluntary Land-Based Wind Guidelines” in its ongoing analysis of the project. The draft guidelines are intended to be used by federal agencies, developers, and state organizations to help with the selection of sites for wind energy projects and to avoid, minimize and/or mitigate for impacts to fish, wildlife and their habitats. Both the draft guidance and proposed bat listings are particularly relevant in the context of the proposed project given the identification of avian and bat mortality and impacts to black bear habitat as significant issues in the EIS.

In addition to outstanding questions regarding the magnitude and acceptability of impacts of the alternatives to bears and bats for this precedent setting project, we continue to find that the SDEIS analyzes too narrow a range of alternatives, that it does not fully support conclusions presented in the face of scientific uncertainty, and that the potential remains for significant avoidable impacts from the project. We have addressed our concerns in detail in the attachment to this letter.

EPA remains willing to work with the FS and appropriate state and federal agencies to develop strategies to address the issues we have raised over the course of our involvement with this project. Based on the information available in the SDEIS, we continue to recommend alternative 3 with monitoring and mitigation as the preferred alternative because it would provide increased renewable energy capacity in the GMNF with reduced impacts to soil and water resources, substantially less potential for bat mortality, and reduced impact to regionally significant bear habitat when compared to the applicant’s proposed and the FS preferred alternatives. We rate alternative 3 as EC-2 “Environmental Concerns—Insufficient Information”, in accordance with EPA’s national rating system, a description of which is attached to this letter. Based on our review, we believe that the alternatives analysis is incomplete as the SDEIS has not demonstrated that smaller utility scale wind power sites on the GMNF are not viable. Because alternative 3 may have the potential to result in reduced impacts when compared to the applicant’s proposal and alternative 2, we continue to object to these two alternatives and have rated them as EO-2 “Environmental Objections—Insufficient Information”, in accordance with EPA’s rating system. The attachment to this letter offers some recommendations as to how the FS may wish to correct these deficiencies going forward in the NEPA process. We continue to believe that a revised alternatives analysis can address the issues we have raised above and in our previous comments. Doing so will require serious consideration of additional alternative sites, as well as a scaled back, or potentially phased project, with appropriate mitigation.

Please feel free to contact Timothy Timmermann of the Office of Environmental Review at 617/918-1025 if you would like to discuss these comments.

Sincerely,



H. Curtis Spalding
Regional Administrator

Attachment

cc:

Bob Bayer, Project Coordinator, Green Mountain National Forest
Judith Dillon, Vermont Agency of Natural Resources

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

Attachment: EPA Comments on the SDEIS for the Deerfield Wind Project

General

Our primary concerns about the SDEIS are related to the alternatives analysis and the potential for impacts to bears and bats and their habitat. Rather than repeat our previous comments here in full we incorporate by reference our 2005 scoping comments and our 2008 comments on the DEIS , as many of them remain relevant to the SDEIS.

Alternatives

Coordination

Our DEIS comments requested establishment of an interagency coordination process to develop a reasonable range of alternatives for wind power projects both on and off the GMNF, and encouraged the FS to seek the input of an interagency/cooperating agency working group to develop criteria to screen and evaluate alternatives. While the SDEIS includes a restructured alternatives analysis, we are not aware of any such process having been established after the DEIS. We believe such a process could have led to a SDEIS that more fully addressed concerns we and others have with respect to alternatives and avoidance of impacts.

Our comments on the DEIS called for a supplemental alternatives analysis that would include additional representative wind power development scenarios for the best available sites under FS jurisdiction as well as site(s) outside the GMNF, consistent with the direction of the Forest Plan. As currently proposed, the preferred alternative, if constructed, would cause direct and indirect impacts to an area that VTANR has noted as regionally significant due to the highest known concentration of bear scarred beech (BSB) trees, indicating significant bear use to forage food. We called for additional analysis to provide a broader range of alternatives for the purpose of seeing if a project could be constructed with less impacts than those associated with the alternatives already considered. We agree that the SDEIS general review of 37 GMNF sites (as previously identified but not analyzed in depth in the Forest Plan) is geographically broad enough for areas within the forest. Unfortunately, the rationale applied in the revised alternatives discussion (the "Analysis of Other NFS Sites for Wind Energy Development" in Appendix I) is incomplete (as described below) and resulted in an unnecessarily narrow range of alternatives that closely mirrors those considered in the DEIS. In light of the precedent as well as the impacts of this project, we continue to believe that a stronger, more defensible alternatives analysis should be conducted before the FS makes a decision on this project.

Project Scale

According to the SDEIS, alternative 3 (the Eastern Project site only alternative) is not commercially viable and the applicant "formally notified the Forest Service that due to high fixed costs and economies of scale, they could not build this configuration and produce the power in a cost effective manner." The SDEIS states that this alternative was evaluated to "provide a valued comparison of Project effects, including potential adverse impacts to bears and bear habitat." (SDEIS page 37) The SDEIS also states that this alternative "...would not likely

be economically sustainable because of its small size..." (SDEIS page 40). However, the conclusion that alternative 3 is not commercially viable is contradicted by several statements in the SDEIS itself. For instance:

- The SDEIS states that "...there is no industry standard for a practical minimum project size for utility scale facilities and that it could certainly differ from company to company based on the companies size, demand for their product, financial goals and objectives, and niche in the market place" (SDEIS Appendix I page 4).
- The SDEIS response to comments section in Appendix J (page 34) notes, "Financial and economic viability data can mean different things to different proponents. What may not be economically viable to this Applicant may be viable to another proponent." This point is especially important. It conflicts with, and undermines the validity of, the basis for the entire alternatives analysis being a 15 turbine "minimum practical project size." This raises the question of whether other smaller utility scale (and potentially less environmentally damaging) wind power generation opportunities exist on the GMNF that were eliminated from consideration due to the application of the 15 turbine minimum size metric.
- Appendix I of the SDEIS (page 6) notes that "[m]any of the 37 GMNF sites allowable for wind energy development are small areas that would most likely be considered suitable for residence-scale or small community/cooperative development, or could perhaps be considered by smaller wind companies that may view these areas as marginally economically viable (given that utility-scale might be determined differently by smaller companies)." While we recognize that residential and small community developments operate in a vastly different regulatory and technical framework compared to utility scale projects, it is the utility scale projects that are the focus of this EIS. Therefore, the FS should provide incorporate these smaller utility scale projects in the alternatives analysis.

Therefore, we believe that alternative 3 should continue to be fully considered as a viable alternative, not just considered an alternative for comparative purposes in the SDEIS. While smaller utility scale projects in other parts of the GMNF might not be of interest to this particular applicant, that is not a valid reason to eliminate them from further consideration as reasonable alternatives. A discussion of 40 CFR Section 1502.14 of the NEPA Regulations in The Council on Environmental Quality's 40 Most Asked Questions Memorandum notes that Section 1502.14 "...requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative." We encourage the FS to keep this in mind as it works to revise the alternatives analysis.

Site 35

We believe the alternatives analysis should more fully describe the rationale for eliminating alternative Site 35. According to our understanding of the SDEIS analysis, the decision was made in part because the site would not result in reduced impacts when compared to the

proposed site. More information to explain this conclusion should be provided as it is our impression from the record and conversations with VTANR that the proposed project and FS preferred alternative would both directly affect regionally significant bear habitat, but it is not clear that this would be the case for site 35. The EIS should provide more specific information to compare the impacts of Site 35 to the FS preferred alternative.

Screening

We note that the initial screening process did not include environmental sensitivity criteria and that all of the alternatives considered in the SDEIS have the potential to cause significant adverse impacts to black bear habitat (with the applicant's preferred alternative having the greatest potential for impact). This situation may have been avoided with the addition of environmental criteria, or at a minimum it may have helped the FS to develop additional alternatives for consideration that may have reduced impacts. We encourage the FS to apply environmental screening criteria to the supplemental alternatives analysis.

Other

We also note that the SDEIS (Appendix I page 4) refers to a "Feb 18, 2008 memo in response to Deerfield Wind Project Range of Alternatives"—we could not locate this memorandum in the SDEIS and would appreciate the opportunity to review it.

Water Quality

The SDEIS identifies the potential for adverse impacts to soil and water resources as a significant issue for the proposed project. This is understandable as the Western and Eastern Project sites are on mountain ridges and feature very steep slopes and highly erodible soils. These conditions make design and construction of a project without erosion and sedimentation problems challenging. This is particularly true at a sharp turn at the top of a ridge along the proposed road to the Eastern Project site. The overall geometry of that curve and adjacent topographic features (a wetland to the inside of the curve and a very steep slope to the outside) present problems for large vehicles maneuvering through that corner with 120 foot-long turbine blades. Regardless of the final design, efforts should be made to maintain as much existing vegetation as possible to stabilize areas adjacent to the roadway.

Mitigation

We encourage the FS to require a comprehensive range of mitigation measures to reduce the potential for erosion and sedimentation from road construction and maintenance. In addition to what the FS already requires, mitigation requirements should be expanded to minimize runoff from the impervious surfaces at the turbine sites (such as but not limited to stormwater BMPs), and ensure that any remaining runoff does not cause erosion. The plan should allow for only the minimum amount of clearing along the roads as possible. Existing vegetation should be left untouched as close to the pavement and gravel edge as possible, and if necessary, with saplings and small trees trimmed instead of removed to maintain live roots to hold soil in place and to continue some water uptake. Consolidation of the roadway subsurface is important for the road to support heavy loads, but again, that consolidation should be along as narrow a path as is

technically possible, with vegetation left as close as possible to the compaction zone.

Stream Designations

The main site maps provided in the SDEIS identify several streams that originate near the project roads, but only one of them closely approaches the road, near turbine E2 on the Eastern Project site. The remaining streams are more than 750 feet from the proposed roads. On the Surface Waters map, however, a great many more “delineated streams” closely approach and/or cross the intended road. It is not clear what the difference is between “delineated” and “mapped” streams, as shown on the surface water map, Figure 3_7.1--the EIS should provide more information to explain these designations.

Wetland & Stream Impacts

Permanent direct wetland impacts would be the same for the Proposed Action, alternative 2, and alternative 3 (465 square feet). The Proposed Action would cross four streams (Stream ID#s 1 to 4). As a result, a total of approximately 16,987 linear feet (3.22 miles) of stream could be affected by sedimentation from these crossings. This includes the total lengths of Stream ID#s 1 to 4 downstream of the proposed access road. On the Eastern Project site wetlands A, B and C are classified as Spruce-Fir Tamarack Swamp and wetland D as a seepage wetland. These wetlands are associated with streams 1, 2, 4, 8, and 9.

The SDEIS describes wetland types and primary functions in the project area but it does not fully assess the potential secondary impacts to wetlands and streams associated with the access road and turbine construction. Secondary impacts are those impacts outside the footprint of the fill (e.g., beyond the bounds of the disposal site) that arise from and are associated with the direct discharge of dredged or fill material. An example includes the reduced hydrological functions of the aquatic resource such as flood storage, low flow maintenance, nutrient and toxicant transformation, sediment trapping, groundwater discharge and recharge. Project area wetlands and ephemeral streams close to the ridgeline act as functional headwaters, and are a critical transition between groundwater and surface water. Headwater wetlands and streams moderate water temperature and contribute organic matter to the stream, both of which are critical to stream biota.

The SDEIS does acknowledge that sedimentation and erosion caused by construction activities could result in indirect impacts to streams and Brook trout habitat. The SDEIS (Appendix A, Section 3.2 Geology and Soils) discusses the development of an Erosion Prevention and Sediment Control Plan (EPSCP) for soil, water and riparian area protection. The plan includes the identification of Restricted Activities Areas. These areas would establish 100-foot buffer zones around streams, and wetlands. We support the FS efforts to develop the EPSCP and recommend that the wetlands and headwater streams associated with the eastern portion of the project be identified as Restricted Activity Areas and protected accordingly to minimize the potential for secondary impacts.

Bear Habitat

The SDEIS highlights continuing scientific uncertainty regarding the response of black bears to the proposed project. The SDEIS reports that “biologists consulted during planning and analyses are not in agreement about the potential impacts of the proposed Project.” (SDEIS Appendix F page 3). The SDEIS reports more fully on the 2008 coordination with the three-member “bear panel” regarding the potential for impacts from the project and concludes that all members of the panel (and other experts consulted) are concerned about the direct and secondary impacts of project road construction and operation, even with mitigation. New or improved roads will catalyze increases in human activity (for turbine and road maintenance, hunting, hiking, mountain biking, dog walking, etc.) in what is now relatively remote bear habitat in areas that are densely wooded and that feature steep slopes.

Based on conversations with agency staff at the VTANR regarding black bear habitat we note that significant concerns appear to remain regarding potential project impacts and the adequacy of mitigation for those impacts to regionally significant black bear habitat. These concerns combined with the scientific uncertainty and disagreement noted in the SDEIS leads us to continue to recommend that the FS use great caution when considering whether or how to permit this project, in light of the precedent it will create for other wind power projects on National Forest land. With our recommendation comes the acknowledgement that even the Eastern Project site (alternative 3) is not without adverse impacts to black bear habitat.